Claims 1.-128.

01/27/2009

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

The list of currently pending claims is presented below. (Canceled)

1	Claim 129. (Withdrawn) A device comprising:	
2	a first substrate having a surface;	
3	a second substrate having a surface, said first substrate and said second substrate	ate being
4	aligned such that said surface of said first substrate opposes said surface	e of said
5	second substrate;	
6	a first organic layer attached to said surface of said first substrate, wherein said	d first
7	organic layer comprises a first recognition moiety; and	
8	a mesogenic layer between said first substrate and said second substrate, said i	mesogenic
9	layer comprising a plurality of mesogenic compounds.	
1	Claim 130. (Withdrawn) The device according to claim 129, further comprising a	second
2	organic layer attached to said second substrate.	

- 1 Claim 131. (Withdrawn) The device according to claim 130, wherein said second organic 2 layer comprises a second recognition moiety.
- 1 (Withdrawn) The device according to claim 130, wherein said first recognition 2 moiety and said second recognition moiety are the same.
- Claim 133. (Withdrawn) The device according to claim 131, wherein said first recognition 2 moiety and said second recognition moiety are different.

1 (Withdrawn) The device according to claim 129, wherein said organic layer 2 comprises a member selected from the group consisting of organosulfur, organosilanes, 3 amphiphilic molecules, cyclodextrins, polyols, fullerenes and biomolecules. 1 Claim 135. (Withdrawn) The device according to claim 130, wherein said first organic layer 2 and said second organic layer are different. 1 Claim 136. (Withdrawn) The device according to claim 130, wherein said first organic layer 2 and said second organic layer are the same. Claim 137. 1 (Withdrawn) The device according to claim 129, wherein said organic layer 2 comprises a member selected from the group consisting of: $(RO)_2 - Si - R^1 - (X^1)_n$ 3 4 wherein. 5 R is an alkyl group; R1 is a linking group between silicon and X1; 6 7 X1 is a member selected from the group consisting of reactive groups and 8 protected reactive groups; and n is a number between 1 and 50. 9 1 Claim 138. (Withdrawn) The device according to claim 137, wherein R is a member selected 2 from the group consisting of methyl and ethyl groups. (Withdrawn) The device according to claim 137, wherein R1 is a member 1 Claim 139. 2 selected from the group consisting of stable linking groups and cleaveable linking groups. (Withdrawn) The device according to claim 139, wherein R1 is a member 1 Claim 140. 2 selected from the group consisting of alkyl, substituted alkyl, aryl, arylalkyl, substituted 3 arvl, substituted arvlalkyl, saturated cyclic hydrocarbon, unsaturated cyclic hydrocarbon, 4 heteroaryl, heteroarylalkyl, substituted heteroaryl, substituted heteroarylalkyl,

heterocyclic, substituted heterocyclic and heterocyclicalkyl groups.

- Claim 141. (Withdrawn) The device according to claim 139, wherein R¹ comprises a moiety which is a member selected from group consisting of disulfide, ester, imide, carbonate, nitrobenzyl phenacyl and benzoin groups.

 Claim 142. (Withdrawn) The device according to claim 139, wherein R¹ is a member selected from the group consisting of alkyl and substituted alkyl groups.
- Claim 143. (Withdrawn) The device according to claim 137, wherein X¹ is a member selected from the group consisting of carboxylic acid, carboxylic acid derivatives, hydroxyl, haloalkyl, dienophile, carbonyl, sulfonyl halide, thiol, amine, sulfhydryl, alkene and epoxide groups.
- Claim 144. (Previously presented) A method for detecting an analyte, comprising:

 contacting with said analyte a recognition moiety for said analyte, wherein said

 contacting causes at least a portion of a plurality of mesogens proximate to said

 recognition moiety to detectably switch from a first orientation to a second

 orientation upon contacting said analyte with said recognition moiety; and

 detecting said second orientation of said at least a portion of said plurality of mesogens,

 whereby said analyte is detected.
- Claim 145. (Previously presented) The method according to claim 144, wherein said analyte
 is a member selected from the group consisting of vapors, gases and liquids.
- 1 Claim 146. (Withdrawn) The method according to claim 145, wherein said vapor is a
 2 member selected from the group consisting of vapors of a single compound and vapors of
 3 a mixture of compounds.
- 1 Claim 147. (Withdrawn) The method of claim 145, wherein said gas is a member selected
 2 from the group consisting of a single gaseous compound and mixtures of gaseous
 3 compounds.

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mesogens.

Claim 148.

3 compounds, solutions of solid compounds and solutions of gaseous compounds. 1 Claim 149. (Previously presented) The method according to claim 144, wherein said 2 recognition mojety comprises a member selected from the group consisting of metal ions, 3 metal-binding ligands, metal-ligand complexes, nucleic acids, peptides, cyclodextrins, 4 acids, bases, antibodies, enzymes and combinations thereof. 1 Claim 150. (Previously presented) The method according to claim 144, wherein from about 10 to about 108 mesogens undergo said switching for each molecule of analyte interacting 2 3 with said analyte. 1 Claim 151. (Previously presented) The method according to claim 144, wherein from about 103 to about 106 mesogens undergo said switching. 2 1 (Previously presented) The method according to claim 144, wherein said first Claim 152. 2 orientation is a member selected from the group consisting of uniform, twisted, isotropic 3 and nematic and said second orientation is a member selected from the group consisting 4 of uniform, twisted, isotropic and nematic, with the proviso that said first orientation and 5 said second orientation are different orientations. 1 Claim 153. (Previously presented) The method according to claim 152, wherein said detecting is achieved by a method selected from the group consisting of visual 2 3 observation, microscopy, spectroscopic technique, electronic techniques and 4 combinations thereof. 1 Claim 154. (Previously presented) The method according to claim 152, wherein said visual 2 observation detects a change in reflectance, transmission, absorbance, dispersion, 3 diffraction, polarization and combinations thereof, of light impinging on said plurality of

(Previously presented) The method of claim 145, wherein said liquid is a member

selected from the group consisting of a single liquid compound, mixtures of liquid

1	Claim 155.	(Withdrawn) The method according to claim 153, wherein said microscopy is a
2	meml	per selected from the group consisting of light microscopy, polarized light
3	micro	scopy, atomic force microscopy, scanning tunneling microscopy and combinations
4	thereo	of.
1	Claim 156.	(Withdrawn) The method according to claim 153, wherein said spectroscopic
2	techni	ique is a member selected from the group consisting of infrared spectroscopy,
3	Rama	n spectroscopy, x-ray spectroscopy, visible light spectroscopy, ultraviolet
4	spectr	roscopy and combinations thereof.
1	Claim 157.	(Withdrawn) The method according to claim 153, wherein said electronic
2	techni	ique is a member selected from the group consisting of surface plasmon resonance,
3		ometry, impedometric methods and combinations thereof.
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1	Claim 158.	(Currently amended) A device comprising:
2	a first	substrate having a first surface;
3	a seco	and substrate having a second surface, said first substrate and said second substrate
4		being aligned such that said first surface opposes \underline{of} said first substrate opposes
5		said second surface of said second substrate;
6	a first	organic layer attached to said first surface, wherein said first organic layer
7		comprises a first recognition moiety which is bound to said first organic layer,
8		interacts with said analyte, and is selected from a peptide, protein, enzyme, and
9		receptor; and
10	a mes	ogenic layer between said first substrate and said second substrate, said mesogenic
11		layer comprising a plurality of mesogenic compounds.
1	Claim 159.	(Withdrawn) The device according to claim 158, further comprising an interior
2		on defined as the area between said first surface and said second surface, wherein
3	•	nterior portion allows communication between said analyte and said recognition
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4	moiet	y.

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detected.

1	Claim	160.	(Withdrawn) The device according to claim 158, wherein said organic layer is a
2		rubbe	d polymer.
1	Claim	161.	(Withdrawn) The device according to claim 158, wherein said recognition moiety
2		furthe	er comprises a biomolecule comprising a member selected from a polysaccharide
3		and a	combination of a polysaccharide and a protein.
1	Claim	162.	(Withdrawn) The device according to claim 158, wherein said first organic layer
2		comp	rises a self-assembled organosulfur or organosilane monolayer bound to said first
3		surfac	e; and wherein said first recognition moiety is bound to said self-assembled
4		mono	layer.
1	Claim	163.	(Withdrawn) A device for detecting an interaction between an analyte and a first
2		or sec	ond recognition moiety, said device comprising:
3		a first	substrate having a first surface;
4		a first	organic layer attached to said first surface, wherein said first organic layer
5			comprises a first recognition moiety which is bound to said first organic layer,
6			interacts with said analyte, and is selected from a peptide, protein, enzyme, and
7			receptor; and
8		a seco	and substrate having a second surface, said first substrate and said second substrate
9			being aligned such that said first surface opposes said second surface;
0		a seco	and organic layer attached to said first surface, wherein said second organic layer
1			comprises a second recognition moiety, bound to said first organic layer, which
2			interacts with said analyte, wherein said second recognition moiety is selected
3			from an amine, a carboxylic acid, a biomolecule, a drug moiety, a chelating agent,
4			a crown ether, and a cyclodextrin; and
5		a mes	ogenic layer between said first substrate and said second substrate, said mesogenic
6			layer comprising a plurality of mesogens, wherein at least a portion of said
7			plurality of mesogens undergo a detectable switch in orientation upon interaction
8			between said first recognition moiety and said analyte, whereby said analyte is

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3		inorganic ions, pharmaceuticals, herbicides, pesticides, agents of war, noxious gases,	
4		biomolecules and combinations thereof.	
1	Claim	165. (Withdrawn) The device according to claim 163, wherein said interaction is a	
2		member selected from the group consisting of covalent bonding, ionic bonding, hydrogen	
3		bonding, van der Waals interactions, repulsive electronic interactions, attractive	
4		electronic interactions, hydrophobic interactions, hydrophilic interactions and	
5		combinations thereof.	
1	Claim	166. (Withdrawn) The device according to claim 163, wherein said first organic layer	
2		comprises a self-assembled organosulfur or organosilane monolayer bound to said first	
3	surface; and wherein said first recognition moiety is bound to said self-assembled		
4		monolayer.	
1	Claim	167. (Withdrawn) The device according to claim 163, wherein said second organic	
2		layer comprises a self-assembled organosulfur or organosilane monolayer bound to said	
3		second substrate; and wherein said second recognition moiety is bound to said self-	
4		assembled monolayer.	
1	Claim	168. (Withdrawn) A device for detecting an interaction between an analyte and a first	
2		or second recognition moiety, said device comprising:	
3		a first substrate having a first surface;	
4		a first organic layer attached to said first surface, wherein said first organic layer	
5		comprises a first recognition moiety which is bound to said first organic layer,	
6		interacts with said analyte, and is selected from a peptide, protein, enzyme, and	
7		receptor; and	
8		a second substrate having a second surface, said first substrate and said second substrate	
9		being aligned such that said first surface opposes said second surface;	

Claim 164. (Withdrawn) The device according to claim 163, wherein said analyte is a

member selected from the group consisting of acids, bases, avidin, organic ions,

biomolecules and combinations thereof

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- 10 a second organic layer attached to said first surface, wherein said second organic layer 11 comprises a second recognition moiety, bound to said first organic layer, which 12 interacts with said analyte, wherein said second recognition mojety is selected 13 from a peptide, protein, enzyme, and receptor; and 14 a mesogenic layer between said first substrate and said second substrate, said mesogenic 15 layer comprising a plurality of mesogens, wherein at least a portion of said 16 plurality of mesogens undergo a detectable switch in orientation upon interaction 17 between said first recognition moiety and said analyte, whereby said analyte is 18 detected. 1 Claim 169. (Withdrawn) The device according to claim 168, wherein said analyte is a 2 member selected from the group consisting of acids, bases, avidin, organic ions, inorganic ions, pharmaceuticals, herbicides, pesticides, agents of war, noxious gases, 3
- 1 Claim 170. (Withdrawn) The device according to claim 168, wherein said interaction is a
 2 member selected from the group consisting of covalent bonding, ionic bonding, hydrogen
 3 bonding, van der Waals interactions, repulsive electronic interactions, attractive
 4 electronic interactions, hydrophobic interactions, hydrophilic interactions and
 5 combinations thereof.
- 1 Claim 171. (Withdrawn) The device according to claim 168, wherein said first organic layer
 2 comprises a self-assembled organosulfur or organosilane monolayer bound to said first
 3 surface; and wherein said first recognition moiety is bound to said self-assembled
 4 monolayer.
- 1 Claim 172. (Withdrawn) The device according to claim 168, wherein said second organic
 2 layer comprises a self-assembled organosulfur or organosilane monolayer bound to said
 3 second substrate; and wherein said second recognition moiety is bound to said self4 assembled monolayer.

1	Claim 1/3.	(Withdrawn) A device for detecting an interaction between an analyte and a first
2	or sec	cond recognition moiety, said device comprising:
3	a first	substrate having a first surface;
4	a first	organic layer attached to said first surface wherein said first organic layer
5		comprises a first recognition moiety which is bound to said first organic layer and
6		interacts with said analyte; and
7	a seco	and substrate having a second surface, said first substrate and said second substrate
8		being aligned such that said first surface opposes said second surface;
9	a seco	and organic layer attached to said first surface, wherein said second organic layer
10		comprises a second recognition moiety which is bound to said second organic
11		layer and interacts with said analyte; and
12	a mes	ogenic layer between said first substrate and said second substrate, said mesogenic
13		layer comprising a plurality of mesogens, wherein at least a portion of said
14		plurality of mesogens undergo a detectable switch in orientation upon interaction
15		between said first recognition moiety and said analyte, whereby said analyte is
16		detected.
1	Claim 174.	(Withdrawn) The device according to claim 173, wherein said analyte is a
2	meml	per selected from the group consisting of acids, bases, avidin, organic ions,
3	inorga	anic ions, pharmaceuticals, herbicides, pesticides, agents of war, noxious gases,
4	biomo	olecules and combinations thereof.
1	Claim 175.	(Withdrawn) The device according to claim 173, wherein said interaction is a
2	meml	per selected from the group consisting of covalent bonding, ionic bonding, hydrogen
3		ng, van der Waals interactions, repulsive electronic interactions, attractive
4	electr	onic interactions, hydrophobic interactions, hydrophilic interactions and
5	comb	inations thereof.
1	Claim 176.	(Withdrawn) The device according to claim 173, wherein said first organic layer

comprises a self-assembled organosulfur or organosilane monolayer bound to said first

and combinations thereof.

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- 3 surface; and wherein said first recognition moiety is bound to said self-assembled 4 monolayer. 1 Claim 177. (Withdrawn) The device according to claim 173, wherein said second organic 2 layer comprises a self-assembled organosulfur or organosilane monolayer bound to said 3 second substrate; and wherein said second recognition moiety is bound to said self-4 assembled monolayer. 1 Claim 178. (Withdrawn) The device according to claim 173, wherein said first organic layer 2 comprises a self-assembled organosulfur or organosilane monolayer bound to said first 3 surface; and wherein said first recognition moiety is bound to said self-assembled 4 monolayer. 1 Claim 179. (Withdrawn) A device comprising: 2 a first substrate having a surface, wherein said surface comprises a recognition moiety, 3 and said recognition moiety and said first substrate are joined through a member 4 selected from direct attachment and indirect attachment through a spacer arm; 5 a mesogenic layer oriented on said surface; and 6 an interface between said mesogenic layer and a member selected from the group 7 consisting of gases, liquids, solids and combinations thereof. 1 Claim 180. (Withdrawn) The device of claim 179, wherein said recognition moiety and said 2 first substrate are joined through direct attachment, and said direct attachment is through 3 a member selected from covalent bonding, ionic bonding, chemisorption, physisorption
- 1 Claim 181. (Withdrawn) The device of claim 179, wherein said recognition moiety and said first substrate are joined through indirect attachment through a spacer arm, and wherein said spacer arm comprises a member selected from the group consisting of

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Claim 182. (Withdrawn) A device comprising:

2	2 a first substrate having a surface, wherein said su	rface comprises a recognition moiety,
3	3 and said recognition moiety and said first	substrate are joined through a member
4	4 selected from direct attachment and indire	ect attachment through a spacer arm;
5	5 a second substrate having a second surface, said	first substrate and said second substrate
6	6 being aligned such that said first surface of	opposes said second surface;
7	7 a mesogenic layer oriented on said surface; and	
8	an interface between said mesogenic layer and a member selected from the group	
9	9 consisting of gases, liquids, solids and con	mbinations thereof.
1	1 Claim 183. (Withdrawn) The device of claim 182, w	herein said recognition moiety and said
2	2 first substrate are joined through direct attachmen	nt, and said direct attachment is through
3	3 a member selected from covalent bonding, ionic	bonding, chemisorption, physisorption
4	4 and combinations thereof.	
1	1 Claim 184. (Withdrawn) The device of claim 182, w	herein said recognition moiety and said
2	2 first substrate are joined through indirect attachm	ent through a spacer arm, and wherein
3	3 said spacer arm comprises a member selected fro	m the group consisting of
4	4 poly(ethyleneglycol), poly(propyleneglycol), diam	mines, and surface-active agents.
1	1 Claim 185. (Withdrawn) A method for measuring the	e affinity of a recognition moiety for an
2	2 analyte of interest over a pre-bound analyte, said	method comprising:
3	3 (a) contacting a first analyte with a recognition m	noiety for said first analyte, thus forming
4	4 a pre-bound analyte	
5	5 wherein said contacting causes at least a portion	of a plurality of mesogens proximate to
6	6 said recognition moiety to detectably swit	tch from a first orientation to a second
7	7 orientation upon contacting said first anal	yte with said recognition moiety;
8	8 (b) detecting said second orientation of said at lea	ast a portion of said plurality of
9	9 mesogens;	
10	 (c) contacting said analyte of interest with said re 	ecognition moiety, wherein said

contacting causes at least a portion of a plurality of mesogens proximate to said

12		recognition moiety to detectably switch from the second orientation to a third
13		orientation upon contacting said analyte of interest with said recognition moiety;
14		and
15	(d) de	tecting the third orientation of said at least a portion of said plurality of mesogens,
16		whereby the affinity of the recognition moiety for the analyte of interest over the
17		pre-bound analyte is measured.
1	Claim 186.	(Withdrawn) A device for amplifying an interaction between a first recognition
2	moiet	y and an analyte of interest, said device comprising:
3	a first	substrate having a surface;
4	a first	organic layer attached to said surface of said first substrate;
5	where	in said first recognition moiety is capable of interacting with an analyte of interest
6		to form a first recognition moiety-analyte of interest complex; and
7	a mes	ogenic layer comprising a liquid crystalline material, wherein said mesogenic layer
8		is in contact with said first recognition moiety, and the formation of said complex
9		induces a rearrangement in a conformation of said mesogenic layer, and wherein
10		said mesogenic layer amplifies said interaction.
1	Claim 187.	(Withdrawn) The device of claim 186, wherein the first recognition moiety is an
2	antibo	ody.
1	Claim 188.	(Withdrawn) The device of claim 186, wherein the analyte of interest is selected
2	from	a biomolecule, chemical warfare agent, and noxious gas.
1	Claim 189.	(Withdrawn) The device of claim 186, wherein said rearrangement of said
2	mesog	genic layer produces an optical signal.
1	Claim 190.	(Withdrawn) A copper(II)-detecting device comprising:
2	a first	substrate having a surface;
3	a seco	and substrate having a surface, said first substrate and said second substrate being
4		aligned such that said surface of said first substrate opposes said surface of said
5		second substrate:

a first organic layer attached to said surface of said first substrate, wherein said first organic layer comprises a first recognition moiety; and

a mesogenic layer comprising a plurality of mesogenic compounds comprising a structure according to Formula X:

$$R^{11}$$
 X^{11} R^{21}

11 wherein

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 \mathbf{X}^{11} is a member selected from a bond, Schiff bases, diazo compounds, azoxy compounds, nitrones, alkenes, alkynes, and esters;

- R¹¹ and R²¹ are members independently selected from substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted heteroaryl, acyl, halogens, hydroxy, cyano, amino, alkoxy, mercapto, thia, and aza; wherein at least one of said R¹¹ and R²¹ is cyano.
- Claim 191. (Withdrawn) The copper(II)-detecting device of claim 190, wherein X¹¹ is a bond, R²¹ is pentyl, and R¹¹ is cyano.
- 1 Claim 192. (Withdrawn) A sodium-detecting device comprising:
- 2 a first substrate having a surface;
 - a second substrate having a surface, said first substrate and said second substrate being aligned such that said surface of said first substrate opposes said surface of said second substrate:
 - a first organic layer attached to said surface of said first substrate, wherein said first organic layer comprises a first recognition moiety comprising a carboxylic acid moiety; and

(X)

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21 22 a mesogenic layer comprising a plurality of mesogenic compounds comprising a structure according to Formula X:

13 wherein

X¹¹ is a member consisting of a bond, Schiff bases, diazo compounds, azoxy
 compounds, nitrones, alkenes, alkynes, and esters;

R¹¹ and R²¹ are members independently selected from substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted heteroaryl, acyl, halogens, hydroxy, cyano, amino, alkoxy, mercapto, thia, and aza; wherein at least one of said R¹¹ and R²¹ is a member selected from cyano, hydroxy, alkoxy, alkylamine, amine, mercapto, and thia.

- Claim 193. (Withdrawn) The sodium-detecting device of claim 192, wherein X¹¹ is a
 member selected from a bond and an alkene.
- 1 Claim 194. (Withdrawn) The sodium-detecting device of claim 192, wherein R¹¹ is cyano and R²¹ is methoxy.
- Claim 195. (Withdrawn) The sodium-detecting device of claim 192, wherein R¹¹ is cyano
 and R²¹ is pentyl.
- 1 Claim 196. (Withdrawn) A hexylamine-detecting device comprising:
- 2 a first substrate having a surface:
- a second substrate having a surface, said first substrate and said second substrate being
 aligned such that said surface of said first substrate opposes said surface of said
 second substrate:

(X)

a first organic layer attached to said surface of said first substrate, wherein said first

recognition moiety comprising a carboxylic acid

moiety; and

a mesogenic layer comprising a plurality of mesogenic compounds comprising a structure according to Formula X:

12 wherein

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X¹¹ is a member consisting of a bond, Schiff bases, diazo compounds, azoxy compounds, nitrones, alkenes, alkynes, and esters;

R¹¹ and R²¹ are members independently selected from substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted heteroaryl, acyl, halogens, hydroxy, cyano, amino, alkoxy, mercapto, thia, and aza; wherein at least one of said R¹¹ and R²¹ is a member selected from cyano, hydroxy, alkoxy, alkoxy, amine, mercapto, and thia.

- Claim 197. (Withdrawn) The hexylamine-detecting device of claim 196, wherein X¹¹ is a member selected from a bond and an alkene.
- 1 Claim 198. (Withdrawn) The hexylamine-detecting device of claim 196, wherein R¹¹ is 2 cvano and R²¹ is methoxy.
- Claim 199. (Withdrawn) The hexylamine-detecting device of claim 196, wherein R¹¹ is
 cyano and R²¹ is pentyl.
- 1 Claim 200. (Withdrawn) A method of detecting an analyte, comprising:
- (a) interacting said analyte with a surface comprising a recognition moiety, thereby
 forming an analyte-recognition moiety complex, said surface comprising:

4		(1) a substrate;
5		(ii) an organic layer bound to said substrate; and
6		(iii) said recognition moiety bound to said organic layer;
7	(b) c	ontacting said analyte-recognition moiety complex with a mesogenic layer, thereby
8		causing at least a portion of a plurality of mesogens proximate to said recognition
9		moiety to detectably switch from a first orientation to a second orientation and
10	detect	ting said second orientation of said at least a portion of said plurality of mesogens,
11		whereby said analyte is detected.
1	Claim 201.	(Withdrawn) A method of detecting an analyte, comprising:
2	(a) in	teracting said analyte with a surface comprising said recognition moiety, said
3		surface comprising:
4		(i) a substrate;
5		(ii) an organic layer bound to said substrate; and
6		(iii) said recognition moiety bound to said organic layer;
7	(b) co	ontacting said analyte with an organic mesogenic layer, thereby causing at least a
8		portion of a plurality of mesogens proximate to said recognition moiety to
9		detectably switch from a first orientation to a second orientation upon contacting
10		said analyte with said recognition moiety; and
11	detect	ting said second orientation of said at least a portion of said plurality of mesogens,
12		whereby said analyte is detected.
1	Claim 202.	(Withdrawn) A method for detecting an analyte, comprising:
2	intera	cting said analyte and a mesogenic layer, wherein said interacting causes at least a
3		portion of a plurality of mesogens to detectably switch from a first orientation to a
4		second orientation; and
5	detect	ting said second orientation of said at least a portion of said plurality of mesogens,
6		whereby said analyte is detected.